APR 17 2009

Docket No.: 1293.1950

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Kyoung-hwan PARK et al.

Serial No. 10/678,750 Group Art Unit: 2627

Confirmation No. 6605

Filed: October 3, 2003 Examiner: LaTanya BIBBINS

For: APPARATUS AND METHOD FOR GENERATING TRACKING ERROR SIGNAL AND OPTICAL RECORDING/REPRODUCING SYSTEM USING SAME

PRE-APPEAL BRIEF CONFERENCE REQUEST

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

The Applicants respectfully request review of the rejection mailed November 26, 2008 in the above-identified application. No amendments are being filed with this request. This request is being filed with a Notice of Appeal. Claims 1-23 are pending. Claims 1-23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,787,076 to Deguchi et al. A pre-appeal brief panel review of the identified appealable issues I, II and III is requested.

I. Deguchi does not disclose a filter which removes AC components from the signal

Claim 1 recites "a high-pass filter which removes an AC component from the SPP signal such that only DC components of the SPP signal remain."

Deguchi discusses at col. 4, lines 49-51 and col. 6, lines 48-50, that the low pass filter 18 and low pass filter 109 extracts only a low frequency component of the tracking error signal. Deguchi does not suggest that the filter 18, 109 extracts an AC component from the signal such that only DC components remain. The low pass filters 18, 109 of Deguchi extract the low frequency component of the signal. However, Deguchi does not suggest that the low pass filters 18, 109 remove the AC components from the signal such that only DC components remain.

In contrast, the present invention of claim 1, for example, utilizes a filter which removes the AC components so that only the DC components of the signal remain. The present invention of claim 1 is not directed to removing "low frequency components," but is directed to removing "AC components."

II. Official Notice

In the Office Action mailed June 12, 2007, the Examiner took Official Notice that providing a low-pass filter in series with a signal output results in the equivalent frequency response as connecting a high-pass filter to ground at the signal output since the applicant has not disclosed that a high-pass filter solves any stated problem or is for any particular purpose and it appear that the invention would perform equally well with a low-pass filter in series.

In the Amendment filed August 28, 2007, the Applicants implicitly traversed the Examiner's assertion of Official Notice by arguing that a high-pass filter which removes all AC components from the SPP signal such that only DC components of the SPP signal remain does provide a benefit distinct from that of a low-pass filter in series with a signal output. Namely, providing a high-pass filter which removes an AC component such that only DC components remain results in stably generating a DPP signal regardless of disc track pitch. Thus, as the Examiner stated that the Examiner was taking Official Notice since the Applicant did not disclose that the high-pass filter solves any stated problem and is for any particular purpose, and then the Applicants argued that utilizing a high-pass filter which removes all AC components from the SPP signal such that only DC components of the SPP signal remain does solve a problem and is for a particular purpose, the Applicants did traverse the Examiner's assertion of Official Notice.

In the subsequent Office Action, the Examiner did not include an explanation as to why the traversal was inadequate, as is required by M.P.E.P. § 2144.03. Thus, the Applicants' arguments traversed the Examiner's assertion of Official Notice.

Further, while M.P.E.P. § 2144.03 provides guidance to the Examiner as to determining whether the traversal is not adequate and that the Examiner may clearly indicate in the next Office Action that the common knowledge or well-known in the art statement is taken to be admitted prior art, M.P.E.P. § 2144.03 provides no reference to the C.F.R. or to case law that supports that a lack of or inadequate traversal necessarily results in the admission that the statement at issue is admitted prior art. The Applicants respectfully submit that the M.P.E.P. does not recite that the Applicant must acquiesce to this assertion and particularly points out that, when requested, the Examiner must provide substantiary evidence to support his/her contention.

Numerous case law invariably support the notion that the Examiner be required to cite a prior art reference, particularly where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known. *See In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970). While "Official Notice" may be relied upon, as noted in MPEP § 2144.03, these circumstances should be rare and Official Notice unsupported by documentary evidence should only be taken by the Examiner where the facts asserted to be well known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known and only when such facts are of notorious character and serve only to "fill in the gaps" which might exist in the evidentiary showing made by the Examiner to support a particular ground of rejection.

An "assessment of basic knowledge and common sense that is not based on any evidence in the record lacks substantial evidence support." In re Zurko, 258 F.3d 1379, 1385, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). Here, the Examiner has failed to provide substantial evidential support for "a high-pass filter which removes AC components from the SPP signal such that only DC components of the SPP signal remain" and the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known.

Further, the Examiner has failed to establish, by the Examiner's taking of Official Notice, a high-pass filter connected to ground, which removes AC components such that *only* DC components of the signal remain. The Examiner alleges only that a low-pass filter in series is equivalent to a high-pass filter connected to ground, but the Examiner has failed to demonstrate facts that are capable of instant and unquestionable demonstration as to providing a high-pass filter to ground results in the removal of AC components such that only DC components of the signal remain.

The Examiner provided references showing a typical low pass filter and a typical high pass filter, but the Examiner has again failed to provide any adequate support to show a high pass filter that is connected to ground, which removes AC components of a signal *such that only DC components of the signal remain*.

III. Design Choice

First, the Applicants are well aware that KSR International v. Teleflex provides that, in asserting that a claim is *prima facie* obvious, the teaching-suggestion-motivation test is not the only rationale that may be relied upon to support the conclusion of obviousness. However, KSR does require an apparent reason coupled with rational underpinning to support the conclusion of obviousness.

Here, the Examiner has asserted that "[i]t would have been an obvious matter of design choice to provide a high-pass filter to ground versus having a low-pass filter in series with the SPP signal since the applicant has not disclosed that a high-pass filter solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a low-pass filter in series."

With regard to "an obvious matter of design choice," M.P.E.P. § 2144.04(VI)(C) states that "[t]he mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device [emphasis added]." *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984).

The "motivation" or "reason" of "...since the applicant has not disclosed that a high-pass filter solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a low-pass filter in series" is not a reason as to why Deguchi would have been modified as suggested by the Examiner.

The Examiner fails to articulate how a high pass filter substituted for the low pass filter 109 of Deguchi, which does not remove AC components such that only DC components remain, would be "an obvious matter of design choice."

Additionally, the Examiner's only apparent reason or "motivation" is merely that the Applicant has not disclosed that a high-pass filter solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a low-pass filter in series.

However, the Applicants have disclosed that a high-pass filter solves a stated problem or is for a particular purpose. Further, the invention would not perform equally well with a low-pass filter that does not remove the AC components such that only the DC components remain.

As discussed multiple times, the arrangement of a high-pass filter in series between an output terminal of a SPP signal generating unit and a ground terminal, where the high-pass filter removes an AC component from the SPP signal such that only DC components of the SPP signal remain, is not an obvious matter of design choice because the arrangement does solve a stated problem.

At paragraphs 0012 and 0015 of the present disclosure, one of the problems to be solved is that a change in a disc track pitch makes it difficult to precisely match the phases of an MPP and an SPP signal, thereby preventing stable generation of the DPP signal. To solve this problem, as discussed at paragraph 0016 of the present disclosure, Korean Pub. No. 2002-42200 suggests compensating for a difference between the phases of a MPP signal and a SPP signal by changing a gain value k. However, for the compensation, both a circuit that detects a phase difference between the MPP signal and the SPP signal and a circuit that changes a gain value k based on the detected phase difference are required to be additionally installed. The installation of these circuits, however, complicates a circuit structure of the system and increases manufacturing costs.

Thus, as discussed in paragraph 0017 of the present disclosure, the present invention provides an apparatus and method for stably generating a tracking error signal (or a DPP signal) *irrespective of a change in a disc track pitch without complicating the structure of an optical recording/reproducing system, thereby performing a stable servo control*.

Further, as discussed in paragraph 0045 of the present disclosure, conventionally, a change in a disc track pitch results in a change in the amplitude of an AC component waveform of an SPP signal, thereby preventing stable generation of a DPP signal. However, according to the embodiment of the present invention, AC components are removed from the SPP signal and, as a result, a DPP signal can be stably generated regardless of a disc track pitch. Thus, as discussed in paragraph 0048, a filter is built in a tracking error signal generating circuit that generates a tracking error signal using a DPP method so as to remove AC components from an SPP signal. Therefore, a tracking error signal can be stably generated regardless of a disc track pitch.

Thus, the benefit in having a high-pass filter which removes AC components from the SPP signal such that only DC components of the SPP signal remain, as opposed to having only a low-pass filter in which only low frequency components are extracted, as in Deguchi, is because removing the AC component from the SPP signal allows for a DPP signal to be stably generated regardless of a disc track pitch. Therefore, utilizing a high-pass filter in such an arrangement solves the problem of (a) unstable generation of the DPP signal and (b) minimizing the complication of the structure. Therefore, it would not have been an "obvious matter of design choice" to replace the low pass filter 109 of Deguchi with a high pass filter that removes an AC component because if a high pass filter is instead used, then the DPP signal can be stably generated regardless of a disc track pitch. Also, utilizing only one filter to generate the DPP signal results in a less expensive and less complicated structure. Further, the low pass filter 109 of Deguchi does not remove an AC component such that only DC components remain, but instead removes only a low frequency component.

Independent claims 1, 4, 7, 10, 11, 14, 17, 20 and 23 therefore patentably distinguish over the reference relied upon. Claims 2, 3, 5, 6, 8, 9, 12, 13, 15, 16, 18, 19, 21 and 22 depend either directly or indirectly from the independent claims, and include all the features of their respective independent claims, and therefore patentably distinguish over the reference relied upon.

Conclusion

It is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited. If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,
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